

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/591, 678  
Source: IFWP  
Date Processed by STIC: 09/13/2006

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IFWP

## RAW SEQUENCE LISTING

DATE: 09/13/2006

PATENT APPLICATION: US/10/591,678

TIME: 10:58:37

Input Set : A:\Sequence Listing ASCII; 2335.0190000.txt

Output Set: N:\CRF4\09132006\J591678.raw

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3 <110> APPLICANT: EVOTEC NEUROSCIENCES
5 <120> TITLE OF INVENTION: DIAGNOSTIC AND THERAPEUTIC USE OF MAL2 GENE AND PROTEIN
6   FOR NEURODEGENERATIVE DISEASES
8 <130> FILE REFERENCE: 043323wo Me/FM
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/591,678
C--> 11 <141> CURRENT FILING DATE: 2006-09-01
13 <150> PRIOR APPLICATION NUMBER: US 60/549,147
14 <151> PRIOR FILING DATE: 2004-03-03
16 <160> NUMBER OF SEQ ID NOS: 16
18 <170> SOFTWARE: PatentIn Ver. 2.1
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 176
22 <212> TYPE: PRT
23 <213> ORGANISM: Homo sapiens
25 <400> SEQUENCE: 1
26 Met Ser Ala Gly Gly Ala Ser Val Pro Pro Pro Pro Asn Pro Ala Val
27   1           5           10           15
29 Ser Phe Pro Pro Pro Arg Val Thr Leu Pro Ala Gly Pro Asp Ile Leu
30   20           25           30
32 Arg Thr Tyr Ser Gly Ala Phe Val Cys Leu Glu Ile Leu Phe Gly Gly
33   35           40           45
35 Leu Val Trp Ile Leu Val Ala Ser Ser Asn Val Pro Leu Pro Leu Leu
36   50           55           60
38 Gln Gly Trp Val Met Phe Val Ser Val Thr Ala Phe Phe Phe Ser Leu
39   65           70           75           80
41 Leu Phe Leu Gly Met Phe Leu Ser Gly Met Val Ala Gln Ile Asp Ala
42   85           90           95
44 Asn Trp Asn Phe Leu Asp Phe Ala Tyr His Phe Thr Val Phe Val Phe
45   100          105          110
47 Tyr Phe Gly Ala Phe Leu Leu Glu Ala Ala Ala Thr Ser Leu His Asp
48   115          120          125
50 Leu His Cys Asn Thr Thr Ile Thr Gly Gln Pro Leu Leu Ser Asp Asn
51   130          135          140
53 Gln Tyr Asn Ile Asn Val Ala Ala Ser Ile Phe Ala Phe Met Thr Thr
54 145          150          155          160
56 Ala Cys Tyr Gly Cys Ser Leu Gly Leu Ala Leu Arg Arg Trp Arg Pro
57   165          170          175
63 <210> SEQ ID NO: 2
64 <211> LENGTH: 2808
65 <212> TYPE: DNA
66 <213> ORGANISM: Artificial Sequence
68 <220> FEATURE:
69 <223> OTHER INFORMATION: Description of Artificial Sequence:nucleotide

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70      sequence of the human MAL2 cDNA
72 <400> SEQUENCE: 2
73 ggcggcgggcgc gcaggagccc gggaggcgga ggcgggaggc ggcggcgggc gcgggagacg 60
74 cagcagcggc agcggcagca tgcggccggc cggagcgtca gtcccgcgc cccgaaccc 120
75 cgccgtgtcc tcccgcgc cccgggtcac cctgccgc ggccccgaca tccctgcggac 180
76 ctactcgggc gccttcgtct gcctggagat tctgttcggg ggtcttctt ggatttttgt 240
77 tgcctcctcc aatgttcctc tacctctact acaaggatgg gtcattgttg tgtccgtgac 300
78 agcgtttttc ttttcgctcc tctttctggg catgttcctc tctggcatgg tggctcaaatt 360
79 tgatgctaac tggaaacttcc tggattttgc ctaccatttt acagtatttg tcttctattt 420
80 tggagccttt ttattggaag cagcagccac atccctgcat gatttgcatt gcaatacaac 480
81 cataaccggg cagccactcc tgagtataaa ccagtataac ataaacgtag cagcctcaat 540
82 ttttgccttt atgacgacag cttgttatgg ttgcagtttg ggtctggctt tacgaagatg 600
83 gcgaccgtaa cactccttag aaactggcag tcgtatgtaa gtttcacttg tctactttat 660
84 atgtctgata aatttggata ccattttgtc cagatgcaaa aacattccaa aagtaattgt 720
85 tttagtagag agagactcta agctcaagtt ctggtttatt tcatggatgg aatgttaatt 780
86 ttattatgat attaaagaaa tggcctttta ttttacctc ccccccttt tccctttccc 840
87 cctttatttt cctccttttc tttctgaaag tttcctttta tgtccataaa atacaaatat 900
88 attgttcata aaaaattagt atcccttttg tttggttgct gagtcacctg aaccttaatt 960
89 ttaattggta attacagccc ctaaaaaaa cacatttcaa ataggcttcc cactaaactc 1020
90 tatattttag tgtaaacag gaattggcac acttttttta gaatgggcca gatggtaaat 1080
91 atttatgctt cacgggtccat acagtctctg tcacaactat tcagttctgc tagtatagcg 1140
92 tgaaagcagc tatacacaat acagaaatga atgagtgtgg ttatgttcta ataaaactta 1200
93 tttataaaaa caaggggagg ctgggtttag cctgtgggccc atagtttgc aaccactggg 1260
94 gtaaacctt agttatatat gatctgcatt ttcttgaact gatcattgaa aacttataaa 1320
95 cctaacagaa aagccacata atatttagtg tcattatgca ataatacat tgcctttgtg 1380
96 ttaatagtca aatacttacc tttggagaat acttaccttt ggaggaatgt ataaaatttc 1440
97 tcaggcagag tccctggatat aggaaaaagt aatttatgaa gtaaacctta gttgcttaat 1500
98 caaactaatg atagtctaac aactgagcaa gatcctcatc tgagagtgtc taaaatggga 1560
99 tccccagaga ccattaacca atactggaac tggatatctag ctactgatgt cttactttga 1620
100 gtttatttat gtttcagaat acagttgttt gccctgtgca tgaatatacc catatttgtg 1680
101 tgtggatatg tgaagctttt ccaaatagag ctctcagaag aattaagttt ttacttctaa 1740
102 ttatttttgc ttacttttag ttaaatgtga atagagtatt aaatataaag ttgtagattc 1800
103 ttatgtgttt ttgtattagc ccagacatct gtaatgtttt tgcactgggtg acagacaaaa 1860
104 tctgttttaa aatcatatcc agcacaaaaa ctatttctgg ctgaatagca cagaaaagta 1920
105 ttttaacctt cctgtagaga tcctcgtcat ggaaagggtgc caaactgttt tgaatggaag 1980
106 gacaagtaag agtgaggcca cagttcccac cacacgaggg cttttgtatt gttctacttt 2040
107 ttcagccctt tactttctgg ctgaagcatc cccttggagt gccatgtata agttgggcta 2100
108 tttagagttc tggaacatag aacaaccatg aatgagtggc atgatccgtg cttaatgatc 2160
109 aagtgttact tatctaataa tcctctagaa agaaccctgt tagatcttgg tttgtgataa 2220
110 aaatataaag acagaagaca tgaggaaaaa caaaagggtt gaggaatca ggcataatgac 2280
111 tttatactta acatcagatc ttttctataa taccctacta ctttggtttt cctagctcca 2340
112 taccacacac ctaaacctgt attatgaatt acatattaca aagtcataaa tgtgccatat 2400
113 ggatatacag tacattctag ttggaatcgt ttactctgct agaatttagg tgtgagattt 2460
114 tttgtttccc aggtatagca ggcttatgtt tgggtggcatt aaattggttt ctttaaaatg 2520
115 ctttgggtggc acttttgtaa acagattgct tctagattgt tacaaccaa gcctaagaca 2580
116 catctgtgaa tacttagatt tgtagcttaa tcacattcta gacttgtgag ttgaatgaca 2640
117 aagcagttga acaaaaatta tggcatttaa gaatttaaca tgtcttagct gtaaaaatga 2700
118 gaaagtgttg gttggtttta aaatctggtg actccatgat gaaaagaaat ttattttata 2760
119 cgtgttatgt ctctaataaa gtattcattt gataaaaaaa aaaaaaaa 2808

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122 <210> SEQ ID NO: 3
123 <211> LENGTH: 270
124 <212> TYPE: DNA
125 <213> ORGANISM: Artificial Sequence
127 <220> FEATURE:
128 <223> OTHER INFORMATION: Description of Artificial Sequence:nucleotide
129     sequence of the 270 bp MAL2 cDNA fragment
131 <400> SEQUENCE: 3
132 tgggtggcact tttgtaaaca gattgcttct agattgttac aaaccaagcc taagacacat 60
133 ctgtgaatac ttagatttgt agcttaatca cattctagac ttgtgagttg aatgacaaag 120
134 cagttgaaca aaaattatgg catttaagaa tttaacatgt cttagctgta aaaatgagaa 180
135 agtgttgggtt gggttttaaaa tctggtaact ccatgatgga aagaaattta ttttatacgt 240
136 gttatgtctc taataaaagta ttcatttgat                270
139 <210> SEQ ID NO: 4
140 <211> LENGTH: 531
141 <212> TYPE: DNA
142 <213> ORGANISM: Artificial Sequence
144 <220> FEATURE:
145 <223> OTHER INFORMATION: Description of Artificial Sequence:coding sequence
146     of the human MAL2 gene
148 <400> SEQUENCE: 4
149 atgtcggccg gcggagcgtc agtcccgcgc cccccgaacc cgcgcgtgtc cttcccgcgc 60
150 ccccggggtca cctgcccgc cggccccgac atcctgcgga cctactcggg cgccttcgtc 120
151 tgcctggaga ttctgttcgg gggctctgtc tggattttgg ttgcctcctc caatgttcct 180
152 ctacctctac tacaaggatg ggtcatgttt gtgtccgtga cagcgttttt cttttcgctc 240
153 ctctttcttg gcatgttcct ctctggcatg gtggctcaaa ttgatgctaa ctggaacttc 300
154 ctggattttg cctaccattt tacagtattt gtcttctatt ttggagcctt tttattggaa 360
155 gcagcagcca catccctgca tgatttgcac tgcaatacaa ccataaccgg gcagccactc 420
156 ctgagtgata accagtataa cataaacgta gcagcctcaa tttttgcctt tatgacgaca 480
157 gcttgttatg gttgcagttt gggctctggc ttacgaagat ggcgaccgta a          531
161 <210> SEQ ID NO: 5
161 <211> LENGTH: 23
162 <212> TYPE: DNA
163 <213> ORGANISM: Artificial Sequence
165 <220> FEATURE:
166 <223> OTHER INFORMATION: Description of Artificial Sequence:primer for the
167     human MAL2 gene
169 <400> SEQUENCE: 5
170 acctgtagag atcctcgtca tgg                                23
173 <210> SEQ ID NO: 6
174 <211> LENGTH: 23
175 <212> TYPE: DNA
176 <213> ORGANISM: Artificial Sequence
178 <220> FEATURE:
179 <223> OTHER INFORMATION: Description of Artificial Sequence:primer for the
180     human MAL2 gene
182 <400> SEQUENCE: 6
183 tggcctcact cttacttgct ctt                                23
186 <210> SEQ ID NO: 7

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187 <211> LENGTH: 20  
188 <212> TYPE: DNA  
189 <213> ORGANISM: Artificial Sequence  
191 <220> FEATURE:  
192 <223> OTHER INFORMATION: Description of Artificial Sequence:primer for the  
193 human cyclophilin B gene  
195 <400> SEQUENCE: 7  
196 actgaagcac tacgggcctg 20  
199 <210> SEQ ID NO: 8  
200 <211> LENGTH: 19  
201 <212> TYPE: DNA  
202 <213> ORGANISM: Artificial Sequence  
204 <220> FEATURE:  
205 <223> OTHER INFORMATION: Description of Artificial Sequence:primer for the  
206 human cyclophilin B gene  
208 <400> SEQUENCE: 8  
209 agccgttggt gtctttgcc 19  
212 <210> SEQ ID NO: 9  
213 <211> LENGTH: 20  
214 <212> TYPE: DNA  
215 <213> ORGANISM: Artificial Sequence  
217 <220> FEATURE:  
218 <223> OTHER INFORMATION: Description of Artificial Sequence:primer for the  
219 human ribosomal protein S9 gene  
221 <400> SEQUENCE: 9  
222 ggtcaaattt accctggcca 20  
225 <210> SEQ ID NO: 10  
226 <211> LENGTH: 22  
227 <212> TYPE: DNA  
228 <213> ORGANISM: Artificial Sequence  
230 <220> FEATURE:  
231 <223> OTHER INFORMATION: Description of Artificial Sequence:primer for the  
232 human ribosomal protein S9 gene  
234 <400> SEQUENCE: 10  
235 tctcatcaag cgtcagcagt tc 22  
238 <210> SEQ ID NO: 11  
239 <211> LENGTH: 19  
240 <212> TYPE: DNA  
241 <213> ORGANISM: Artificial Sequence  
243 <220> FEATURE:  
244 <223> OTHER INFORMATION: Description of Artificial Sequence:primer for the  
245 human beta-actin gene  
247 <400> SEQUENCE: 11  
248 tggaacggtg aaggtgaca 19  
251 <210> SEQ ID NO: 12  
252 <211> LENGTH: 19  
253 <212> TYPE: DNA  
254 <213> ORGANISM: Artificial Sequence  
256 <220> FEATURE:

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257 <223> OTHER INFORMATION: Description of Artificial Sequence:primer for the
258     human beta-actin gene
260 <400> SEQUENCE: 12
261 ggcaagggac ttcctgtaa                                19
264 <210> SEQ ID NO: 13
265 <211> LENGTH: 20
266 <212> TYPE: DNA
267 <213> ORGANISM: Artificial Sequence
269 <220> FEATURE:
270 <223> OTHER INFORMATION: Description of Artificial Sequence:primer for the
271     human GAPDH gene
273 <400> SEQUENCE: 13
274 cgtcatgggt gtgaaccatg                                20
277 <210> SEQ ID NO: 14
278 <211> LENGTH: 21
279 <212> TYPE: DNA
280 <213> ORGANISM: Artificial Sequence
282 <220> FEATURE:
283 <223> OTHER INFORMATION: Description of Artificial Sequence:primer for the
284     human GAPDH gene
286 <400> SEQUENCE: 14
287 gctaagcagt tgggtgtgca g                                21
290 <210> SEQ ID NO: 15
291 <211> LENGTH: 21
292 <212> TYPE: DNA
293 <213> ORGANISM: Artificial Sequence
295 <220> FEATURE:
296 <223> OTHER INFORMATION: Description of Artificial Sequence:primer for the
297     human transferrin receptor TRR gene
299 <400> SEQUENCE: 15
300 gtcgctgggc agttcgtgat t                                21
303 <210> SEQ ID NO: 16
304 <211> LENGTH: 23
305 <212> TYPE: DNA
306 <213> ORGANISM: Artificial Sequence
308 <220> FEATURE:
309 <223> OTHER INFORMATION: Description of Artificial Sequence:primer for the
310     human transferrin receptor TRR gene
312 <400> SEQUENCE: 16
313 agcagttggc tgtgtacct ctc                                23

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VERIFICATION SUMMARY

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Input Set : A:\Sequence Listing ASCII; 2335.0190000.txt

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L:10 M:270 C: Current Application Number differs, Replaced Current Application Number

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date